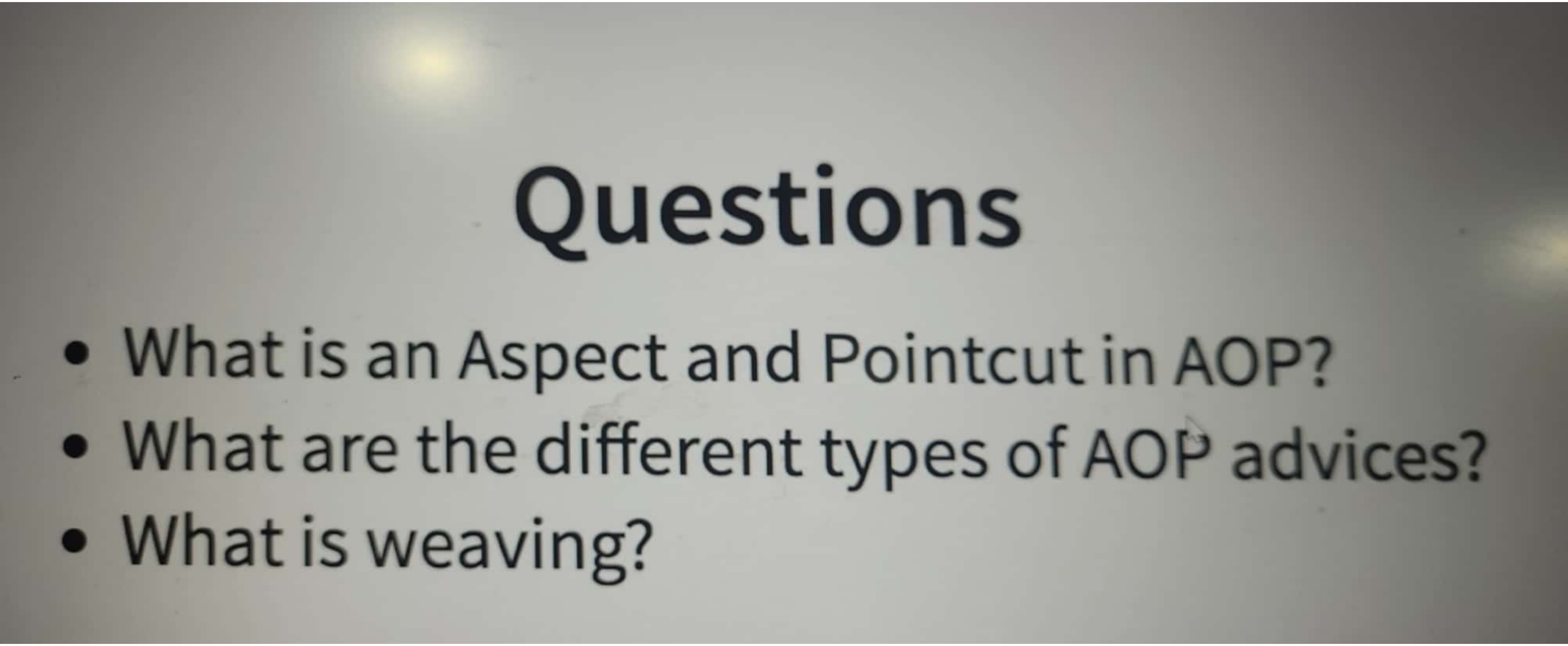
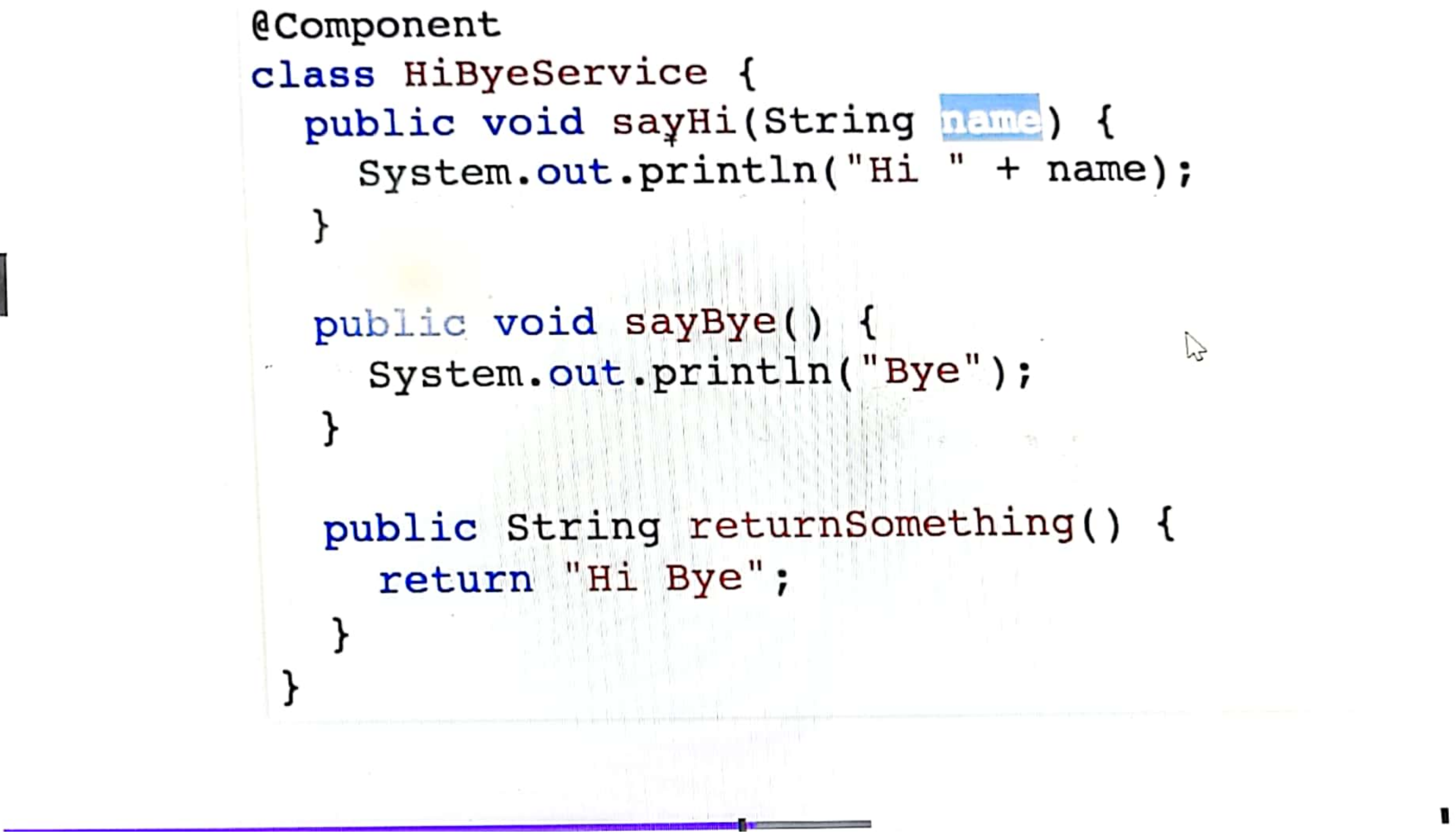
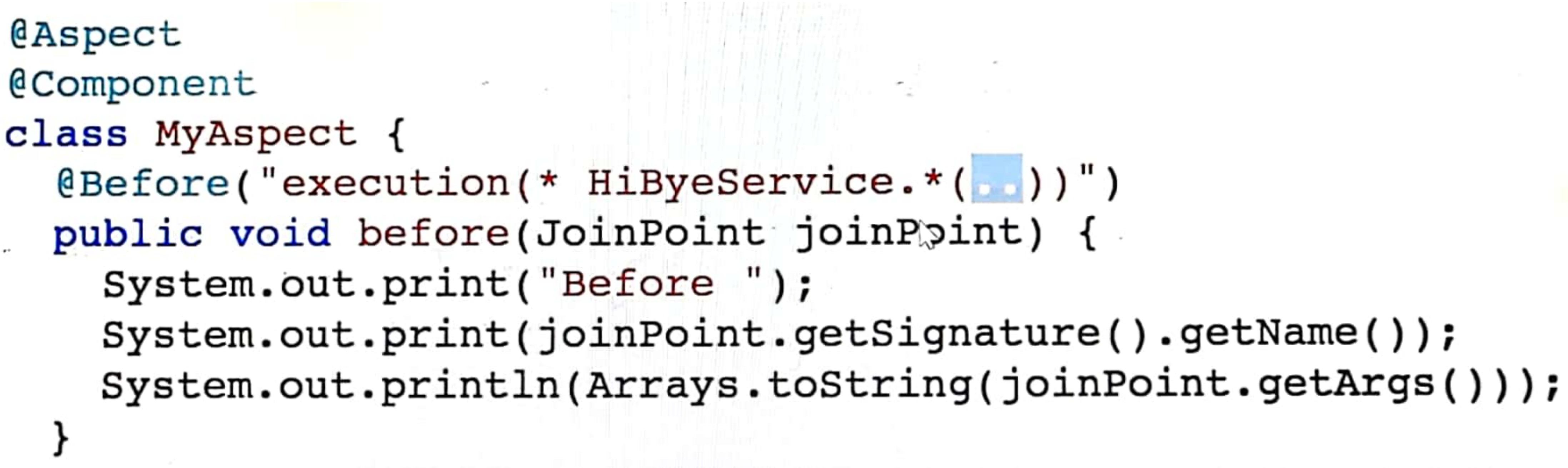


Questions

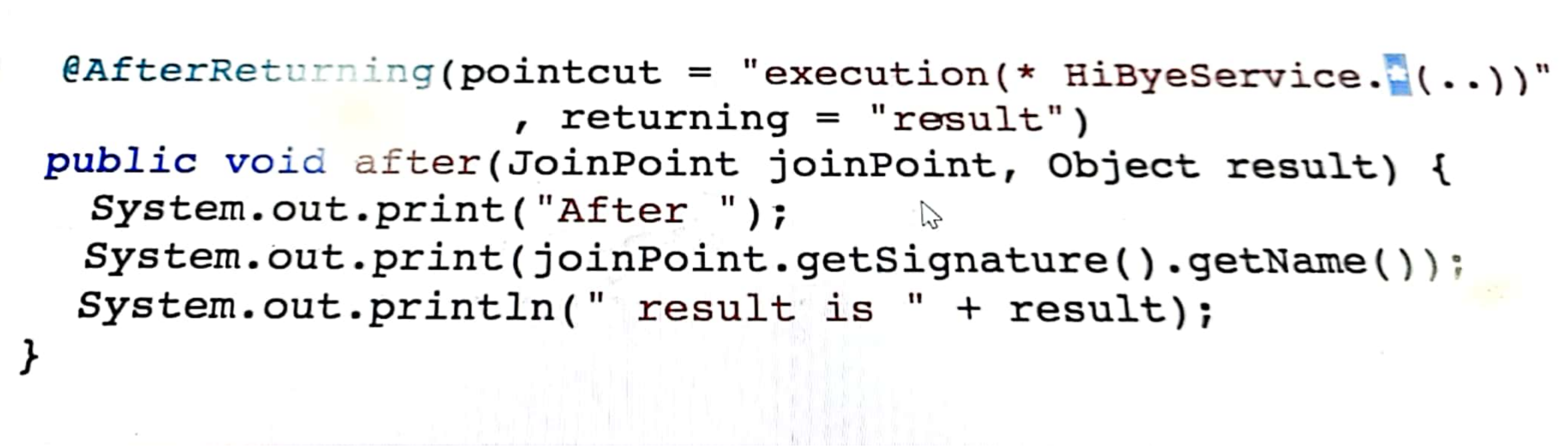
- What is an Aspect and Pointcut in AOP?
- What are the different types of AOP advices?
- What is weaving?



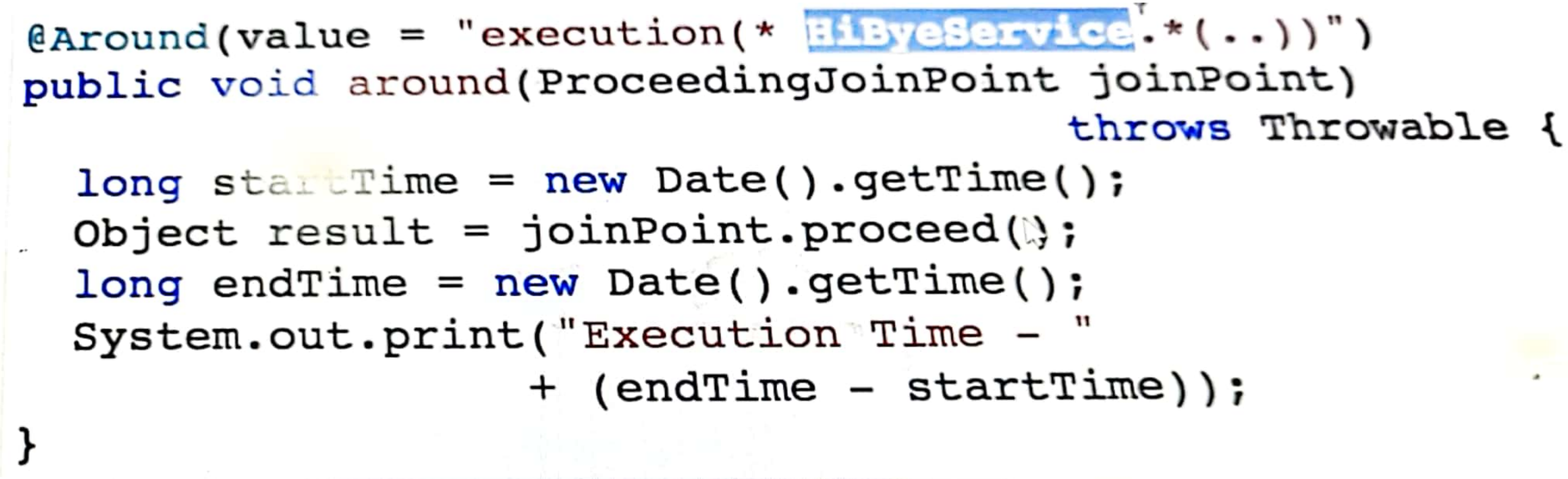
```
@Component
class HiByeService {
  public void sayHi(String name) {
    System.out.println("Hi " + name);
  }

  public void sayBye() {
    System.out.println("Bye");
  }

  public String returnSomething() {
    return "Hi Bye";
  }
}
```



```
@Aspect
@Component
class MyAspect {
  @Before("execution(* HiByeService.*(..))")
  public void before(JoinPoint joinPoint) {
    System.out.print("Before ");
    System.out.print(joinPoint.getSignature().getName());
    System.out.println(Arrays.toString(joinPoint.getArgs()));
  }
```

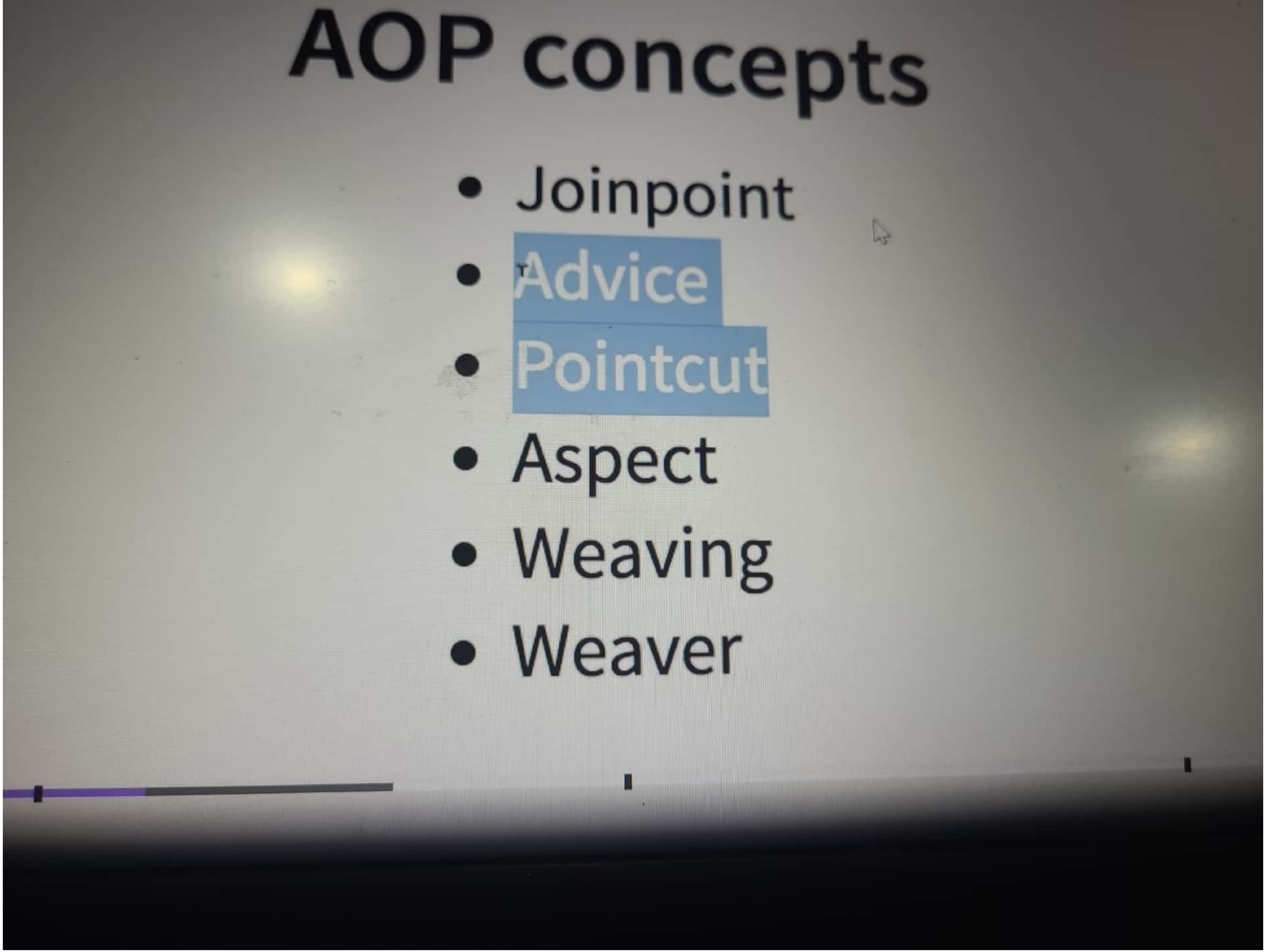


```
@AfterReturning(pointcut = "execution(* HiByeService.*(..))"
                    , returning = "result")
public void after(JoinPoint joinPoint, Object result) {
  System.out.print("After ");
  System.out.print(joinPoint.getSignature().getName());
  System.out.println(" result is " + result);
}
```



```
@Around(value = "execution(* HiByeService.*(..))")
public void around(ProceedingJoinPoint joinPoint)
                                            throws Throwable {
  long startTime = new Date().getTime();
  Object result = joinPoint.proceed();
  long endTime = new Date().getTime();
  System.out.print("Execution Time - "
                      + (endTime - startTime));
}
```

```
@Around(value = "execution(* HiByeService.*(..))")
public void around(ProceedingJoinPoint joinPoint)
                                       throws Throwable {
  long startTime = new Date().getTime();
  Object result = joinPoint.proceed();
  long endTime = new Date().getTime();
  System.out.print("Execution Time - "
                   + (endTime - startTime));
}
```



AOP concepts

- Joinpoint
- Advice
- Pointcut
- Aspect
- Weaving
- Weaver

Advice Types

- Before advice
- After returning advice
- After throwing advice
- After (finally) advice - Always executed
- Around advice - Most powerful - Performance Logging

3:16 / 4:51

AspectJ vs Spring AOP

AspectJ is a full fledged AOP framework

- *Advise objects not managed by the Spring container*
- *Advise join points other than simple method executions*
  - (for example, field get or set join points)

Questions

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